(1947–1958) Proposals to reject twelve names emanating from Loefling's *Iter Hispanicum* (1758), *Ayenia sidiformis* (*Malvaceae*), *Cofer* (*Symplocaceae*), *Cruzeta* and *C. hispanica* (*Amaranthaceae*), *Edechia inermis* and *E. spinosa* (*Rubiaceae*), *Justicia putata* (*Acanthaceae*), *Menais* and *M. topiaria* (?*Boraginaceae*), *Muco* (*Capparaceae*), *Samyda parviflora* (*Salicaceae*), and *Spermacoce suffruticosa* (*Rubiaceae*)

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In a separate paper, Dorr & Wiersema (in Taxon 59: 1245–1262. 2010—this issue) analyzed the standing of 49 names applied to American vascular plants in Pehr Loefling's *Iter Hispanicum*, which was published posthumously in 1758 by Linnaeus. This reference is one of the earliest sources of American plant names, all of which lack original material for typification as there are no figures of American plants and Loefling's American specimens were all apparently lost or destroyed; thus it is not surprising that many of his nomenclatural innovations have been ignored, overlooked, or intentionally suppressed. Nevertheless, as validly published names under the ICBN (McNeill & al. in Regnum Veg. 146. 2006) they must be taken into account when they compete with names of lesser priority. From our analysis we determined that ten of these names could potentially threaten other names in current use and discussed possible mechanisms for disposing of them. Because at least eleven names (nine genera and two species) for American plants and an unknown number for Iberian plants from Loefling's work remain in current use, suppressing his publication under Art. 32.9 is not considered a viable option. To preserve nomenclatural stability, the most effective solution for the ten problem names (four genera and six species) is to propose their rejection under Art. 56. An additional two Linnaean names based solely on Loefling descriptions are also proposed for rejection here.

Additional information on each name proposed for rejection appears in Dorr & Wiersema (l.c.), so we confine our remarks in this paper to identifying the nomenclatural threat posed by each name, providing evidence of its past usage, and evidence of current usage for any potentially affected names.

(1947) ***Ayenia sidiformis*** Loefl. in Iter Hispan.: 257. Aug (sero)-Dec 1758 ('*sidaeformis*') [*Dicot.: Malv.*], nom. utique rej. prop.
Typus: non designatus.

As discussed elsewhere, *Ayenia sidiformis* Loefl. ('*Sidæformis*') threatens *A. tomentosa* L. (in Syst. Nat., ed. 10, 2: 1247. 1759), which has almost universally been used for the last two hundred years and was the name adopted by Cristóbal (in Opera Lilloana 4: 208–213, t. 75. 1960) in her revision of the genus. *Ayenia tomentosa* is one of the few species of the genus that has a wide geographic range being found in drier areas of Venezuela, Guyana, Suriname, Brazil, and the Chaco of Bolivia and Paraguay. With few exceptions *A. tomentosa* has been widely used in taxonomic, floristic, and ecologic publications (e.g., Schumann in Martius, Fl. Bras. 12(3): 104–105. 1886; Cristóbal, l.c. 1960, in Hokche & al., Nuev. Cat. Fl. Vasc. Venez.: 633. 2008; Jansen-Jacobs in Pulle, Fl. Suriname 3(suppl.): 291–292. 1986; Dubs, Prodr. Fl. Matogross.: 276. 1998; Berry & al. in Funk & al., Contr. U.S. Natl. Herb. 55: 531. 2007). In contrast, the name *A. sidiformis* has not been applied to a Venezuelan plant since it was originally published, although it has been cited incorrectly as the type of the generic name (e.g., Britton & Millspaugh, Bahama Fl.: 278. 1920; Britton & Wilson, Bot. Porto Rico Virgin Isl. 5(4): 574. 1924; Abrams, Ill. Fl. Pacif. States 3: 115. 1951).

(1948) ***Cofer*** Loefl. in Iter Hispan.: 309. Aug (sero)-Dec 1758 [*Dicot.: Symploc.*], nom. utique rej. prop.
Typus: non designatus.

Cofer Loefl. (1758) has priority over *Symplocos* Jacq. (in Enum. Syst. Pl.: 5, 24. 1760), but Linnaeus (in Sp. Pl., ed. 2, 1: 747. 1762) placed the former name in synonymy under the latter one. Dandy (in Regnum Veg. 51: 16. 1967) dismissed *Cofer* as a vernacular name, but as Loefling provided a validating description and the genus otherwise conforms to the ICBN Dandy's analysis does not resolve the nomenclatural threat *Cofer* presents to *Symplocos*, a large, widely distributed, and universally accepted genus (e.g., Nooteboom in Leiden Bot. Ser. 1: 1–336. 1975, in Steenis, Fl. Males., ser. 1, Spermat. 8:205–274. 1977, in Aubréville & LeRoy, Fl. Nouvelle Calédonie & Dépend. 9: 135–158. 1980; Ståhl in Harling & Andersson, Fl. Ecuador 43: 3–44. 1991; Wu & Nooteboom in Wu & Raven, Fl. China 15: 235–252. 1996; Mai in Greuter & Rankin Rodríguez, Fl. Cuba, ser. A, 10: 1–20. 2005). ING (2010; http://botany.si.edu/ing/) recognizes *Cofer*, which otherwise generally has been ignored by standard indices.

(1949) ***Cruzeta*** Loefl. in Iter Hispan.: 203. Aug (sero)-Dec 1758 [*Dicot.: Amaranth.*], nom. utique rej. prop.
Typus: *C. hispanica* Loefl.

(1950) ***Cruzeta hispanica*** Loefl. in Iter Hispan.: 203. Aug (sero)-Dec 1758, [*Dicot.: Amaranth.*], nom. utique rej. prop.
Typus: non designatus.

Mears (in Taxon 31: 112. 1982) associated *Cruzeta* Loefl. with the *Gomphrenoideae* (*Amaranthaceae*) and noted that it is older than

all accepted names in the subfamily except *Gomphrena* L. (1753) and *Iresine* P. Browne (1756), nom. cons. Mears also pointed out that it has been impossible to identify *C. hispanica* Loefl. with any known species, despite the fact that Lamarck (in Encycl. 2(1): 218. 1786) and Moquin-Tandon (in Candolle, Prodr. 13(2): 349. 1849) did so under the superfluous name *C. americana* Lam. The generic name is potentially destabilizing and nomenclatural stability would be preserved by rejecting both it and the name of the species indicating its type. Precedent for simultaneously rejecting the names of a genus and species exists (see Appendix V sub *Polypodiopsis* Carrière and *P. muelleri* Carrière, and *Villamillia* Ruiz & Pav. and *V. tinctoria* Ruiz & Pav.).

(1951) ***Edechia inermis*** Loefl. in Iter Hispan.: 271, 306. Aug (sero)-Dec 1758 [*Dicot.: Rub.*], nom. utique rej. prop.
Typus: non designatus.

(1952) ***Edechia spinosa*** Loefl. in Iter Hispan.: 259, 306. Aug (sero)-Dec 1758 [*Dicot.: Rub.*], nom. utique rej. prop.
Typus: non designatus.

Both of these species were mentioned cryptically by Linnaeus (l.c., ed. 2, 1: 276. 1762) in synonymy under *Laugieria odorata* Jacq. (l.c. 1760: 16) as he wrote "Edechia *Lœfl. it.* 306, 271, 259." Jacquin (in Select. Stirp. Amer. Hist.: 64. 1763) also presented the same synonymy. Later, Linnaeus (in Syst. Nat., ed. 12, 2: 177. 1767) listed a "*Variat spinosa et inermis*" under *Laugeria* [sic] *odorata*. This same treatment continued to be reflected in Willdenow (in Sp. Pl. 1(2): 1081–1082. 1798) and Lamarck (l.c. 3(2): 433. 1792), but the latter dismissed the varieties mentioning that, according to Jacquin, both spineless and spiny forms appear in the same species. On the same day that Lamarck's treatment in the *Encyclopédie* appeared (13 Feb 1792), Lamarck (in Tabl. Encycl. 2(1): 219. 1792) transferred *L. odorata* to *Guettarda odorata* (Jacq.) Lam. This latter name is now in current use for a strictly Caribbean species (e.g., Steyermark, Fl. Venez. 9: 785–787. 1974; Howard, Fl. Lesser Antilles 6: 419–420. 1989; Acevedo-Rodríguez in Mem. New York Bot. Gard. 78: 379–381. 1996; Liogier, Descr. Fl. Puerto Rico 5: 104. 1997; Taylor & Steyermark in Berry & al., Fl. Venez. Guayana 8: 615. 2004), although formerly it was applied to a related northern South American species now known as *G. divaricata* (Humb. & Bonpl. ex Roem. & Schult.) Standl. (e.g., Steyermark, l.c.: 787–790; Taylor & Steyermark, l.c.; Araujo da Anunciação & al. in Funk & al., l.c.: 482; Taylor in Hokche & al., l.c.: 581), based on *Dicrobotryum divaricatum* Humb. & Bonpl. ex Roem. & Schult. (in Syst Veg. 5: xiii, 221. 1819). *Edechia spinosa* and *E. inermis* have priority over both Jacquin's and Roemer & Schultes's basionyms and no barrier exists to their adoption in *Guettarda* L.

(1953) ***Justicia putata*** Loefl. in Iter Hispan.: 244. Aug (sero)-Dec 1758 [*Dicot.: Acanth.*], nom. utique rej. prop.
Typus: non designatus.

In his expanded description of *Justicia pulcherrima* Jacq. (l.c. 1760: 11), Jacquin (l.c. 1763: 6) cited Loefling's diagnosis of *J. putata*, but he omitted or suppressed Loefling's specific epithet. Vahl (in Enum. Pl. 1: 119. 1804) explicitly cited the earlier *J. putata* as a synonym of *J. pulcherrima*. Apart from the Loefling translations and facsimiles, the name *J. putata* has not been used since 1760 and to accept it now would displace *Aphelandra pulcherrima* (Jacq.) Kunth, which has been used for almost two hundred years and is the name adopted in a revision of *Aphelandra* R. Br. (Wasshausen in Smithsonian Contr. Bot. 18: 88–92. 1975). The species has an extensive distribution from Costa Rica to Andean Peru, and the islands of Trinidad and Tobago, and it is included in numerous checklists and floras (e.g., Leonard, Contr. U.S. Natl. Herb. 31: 212–213. 1953; Brako & Zarucchi, Cat. Fl. Pl. Gymnosp. Peru: 4. 1993; Llamozas in Hokche & al., l.c.: 185; Wasshausen in Berry & al., l.c. 2: 339. 1995, in Funk & al., l.c.: 183).

(1954) ***Menais*** Loefl. in Iter Hispan.: 306. Aug (sero)-Dec 1758 [*Dicot.: Boragin.*?], nom. utique rej. prop.
Typus: *M. topiaria* L.

(1955) ***Menais topiaria*** L. in Sp. Pl., ed. 2, 1: 251. Sep 1762 [*Dicot.: Boragin.*?], nom. utique rej. prop.
Typus: non designatus.

Loefling described this genus without indicating any species. Linnaeus (l.c. 1762: 251) based his single species *M. topiaria* L. on Loefling's generic name, thereby providing the type of the generic name. In his treatment of the genera of *Boraginaceae*, Bentham (in Bentham & Hooker, Gen. Pl. 2(2): 838. 1876) included *Menais* among the "Genera dubia aut exclusa" (viz., "… calyx 3-phyllus foliolis membranaceis concavis in nullis Borageneis adhuc observatus est"). Nonetheless, Jackson (Index Kew. 2: 205. 1894) and Farr & al. (in Regnum Veg. 101: 1068. 1979), both of whom accepted *Menais*, placed it in the *Boraginaceae*. Jarvis (l.c.: 665) listed *M. topiaria* L. as an accepted, untypified name that he also included in the *Boraginaceae*. However, neither the genus nor species was noted by Gaviria (in Hokche & al., l.c.: 282–286), perhaps because their identities have been problematic.

(1956) ***Muco*** Loefl. in Iter Hispan.: 234. Aug (sero)-Dec 1758 [*Dicot.: Cappar.*], nom. utique rej. prop.
Typus: non designatus.

Iltis & al. (in Novon 6: 375–384. 1996) reported that they used the vernacular name "Muco" to capitalize on local knowledge to help them find an undescribed species of *Capparis* L. (1753) that they knew from imperfect collections. They found their species near Barcelona (Edo. Anzoátegui, Venezuela), which is close to where Loefling made his observations, and they named it *Capparis muco* Iltis & al. Subsequently, Cornejo & Iltis (in Harvard Pap. Bot. 13: 103–116. 2008) resurrected *Neocalyptrocalyx* Hutch. (1967) as a replacement name for *Capparis* subg. *Calyptrocalyx* Eichler (1865), non *Calyptrocalyx* Blume (1838), and transferred *Capparis muco* and five other species of *Capparis* to *Neocalyptrocalyx*. If their species and *Muco* Loefl. are the same, then Loefling's generic name would have priority over *Neocalyptrocalyx*. More recently, Ruiz-Zapata (in Ernstia 16: 123. 2006) speculated that the "Muco" of Loefling was the same as *Capparis stenosepala* Urb., which occurs near Cumaná (Edo. Sucre, Venezuela), and she disputed the relationship of Loefling's "Muco" to *Capparis muco* (≡ *N. muco* (Iltis & al.) Cornejo & Iltis). *Capparis stenosepala* has been transferred to the genus *Calanthea* (DC.) Miers (1864), as *Calanthea stenosepala* (Urb.) Cornejo & Iltis (in Harvard Pap. Bot. 13: 117–120. 2008), but the latter generic name also lacks priority over Loefling's name. Neither Ruiz-Zapata (l.c.) nor Iltis & al. (l.c.) considered *Muco* to be a valid generic name and consequently paid no attention to its potentially destabilizing nomenclatural consequences.

(1957) ***Samyda parviflora*** Loefl. in Iter Hispan.: 260. Aug (sero)-Dec 1758 [*Dicot.: Salic.*], nom. utique rej. prop.
Typus: non designatus.

Samyda parviflora L. (l.c. 1759: 1025), considered by Sleumer (in Fl. Neotrop. Monogr. 22: 390–391. 1980) to be an illegitimate name synonymous with *Casearia sylvestris* Sw. (in Fl. Ind. Occid. 2: 752. 1798), is a later homonym of *S. parviflora* Loefl. (1758). Nonetheless, when Linnaeus (l.c. 1762: 557) revisited this species he listed the earlier Loefling name as a synonym of his later homonym. Linnaeus's taxonomic decision must have been based on the descriptions alone as there were no Loefling specimens from Venezuela available to him. Sleumer (l.c.: 345) considered *S. parviflora* Loefl. to be a doubtful synonym of *C. decandra* Jacq. (l.c. 1760: 21), ascribing authorship of the former name to "Loefl. ex L." Kiger (in Taxon 33: 456. 1984) considered *S. parviflora* Loefl. to be a "nom. ambig." and thought it to be either a synonym of *C. decandra* or *C. sylvestris*. The *Vienna Code* does not recognize nomina ambigua and because of priority Loefling's name continues to threaten one or the other of these two commonly accepted species of *Casearia* Jacq. (e.g., Bornstein in Howard, l.c. 5: 350, 353. 1989; Brako & Zarucchi, l.c.: 529–530; Olsen & al. in Berry & al., l.c. 5: 444, 447. 1999; Jørgensen & León-Yánez, Cat. Vasc. Pl. Ecuador: 485. 1999; Aymard & al. in Funk & al., l.c.: 301; Zmarzty & Fernández in Hokche & al., l.c.: 403). Zmarzty & Fernández (l.c.) considered *S. parviflora* Loefl. (also ascribing authorship to "Loefl. ex L.") to be a synonym of *C. decandra*, a subtle change from Sleumer's (l.c.) argument and one that should have forced them to adopt the name published by Loefling (Art. 11.4).

(1958) ***Spermacoce suffruticosa*** L. in Syst. Nat., ed. 10, 2: 890. Mai-Jun 1759 [*Dicot.: Rub.*], nom. utique rej. prop.
Typus: non designatus.

Loefling (l.c.: 201) originally distinguished this taxon with a polynomial ("SPERMACOCE suffruticosum, foliis …") and in a later German translation of his work (Kölpin in Loefling, ed. 1766: 264) it was provided with a binomial ("SPERMACOCE *spinosa* suffruticosa, foliis …"). However, in the eight year interval between the original publication and its German translation, Linnaeus (l.c. 1759: 890) published *Spermacoce suffruticosa* L. with a direct reference to Loefling's polynomial. For whatever reason this Linnaean name is not in IPNI (2010; http://www.ipni.org), being replaced by "*Spermacoce suffruticosa* Loefl., It. Hisp. 201"; a truncated polynomial masquerading as a binomial. With the exception of Willdenow (in Sp. Pl. 1(2): 798. 1753) where usage is equivocal, the Linnaean name seems to have been completely ignored by later botanists as Linnaeus (l.c. 1762: 148) later replaced it with *S. spinosa*, citing "Spermacoce suffruticosum. *Lœfl. it.* 201," the sole basis for his earlier *S. suffruticosa*, and "Spermacoce spinosa. *Jacq. amer.* 12." Jacquin's entry (l.c. 1760: 12) has only a single word description "spinosa," but this is presumably enough for valid publication. If the two names are synonymous, as implied by Linnaeus, *S. suffruticosa* L. is the earlier one. Jarvis (Order out of Chaos: 868. 2007) does list *S. suffruticosa* L. as an accepted, untypified name, but the name is not in Andersson (in Scripta Bot. Belg. 1: 1–199. 1992), who lists only *S. spinosa* L. (1762: 148; "Doubtful, see Steyermark, Mem. N.Y. Bot. Gard. 23: 814. 1972") and *S. spinosa* Jacq. (1763: 21; "= *Machaonia havanensis*" (Jacq.) Alain, based on *S. havanensis* Jacq. in J.F. Gmelin, Syst. Nat. 2: 234. 1791). Jacquin's species, described from Cuba, cannot be transferred now to *Machaonia* Bonpl. (1808) [1806] and retain its epithet due to the existence of the earlier *M. spinosa* Cham. & Schltdl. Whether *S. spinosa* sensu L. (1762) equates to *S. spinosa* Jacq. (1760) depends on valid publication of the earlier name; Jacquin's (l.c. 1763: 21) expanded 1763 treatment of this name makes no reference to Linnaeus. Steyermark (l.c.) considered *S. spinosa* L., a name he rejected as ambiguous and of uncertain determination, as a superfluous name for "*Spermacoce suffruticosum* Loefl.," failing to note that this latter name did not exist and overlooking its later publication by Linnaeus (1759). As noted above, *S. suffruticosa* L. must apply to a Venezuelan plant although the name was not mentioned by Steyermark (l.c. 9: 1–2070. 1974) or Taylor (in Hokche, l.c.: 576–597).

Grisebach (in Fl. Brit. W.I.: 349. 1864) cited "Spermacoce spinosa, *Lœfl.* (*non Jacq., non Sw.*)" as a synonym of *Diodia sarmentosa* Sw. (≡ *Diodella sarmentosa* (Sw.) Bacigalupo & E.L. Cabral) and stated that neither Loefling's nor Swartz's plant are spiny. Since the binomial "*Spermacoce spinosa*" does not appear in the original *Iter Hispanicum* (1758), it appears that, in fact, Grisebach cited *S. spinosa* Kölpin (l.c.). If Grisebach's synonymy is correct, then on the basis of priority *S. suffruticosa* L. also threatens *D. sarmentosa*.

(1959) Proposal to reject *Lasiostelma somalense* (*Apocynaceae*)

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(1959) ***Lasiostelma somalense*** Schltr. in J. Bot. 37: 61. 1899 [*Apocyn.*], nom. utique rej. prop.
Holotypus: "Somaliland", 1897, *Lort Phillips s. n.* (BM).

Lasiostelma somalense Schltr. was based on a single specimen showing a slender stem with several flowers arranged in a lax, raceme-like inflorescence. The exact locality of the plant was not given, but the specimen must have been from north-western Somalia, where Mrs E. Lort Phillips collected in 1897. In the protologue the species was said to be most closely related to *L. subaphyllum* (K. Schum.) Schltr. (in J. Bot. 37: 62. 1899) based on *Brachystelma subaphyllum* K. Schum. (in Ann. Ist. Bot. Roma 7: 40. 1897), also from north-western Somalia. Both *L. somalense* and *L. subaphyllum* were soon transferred to *Tenaris*, as respectively *T. somalensis* (Schltr.) N.E. Br. and *T. subaphylla* (K. Schum.) N.E. Br. (both in Oliver, Fl. Trop. Afr. 4: 473. 1903). Since then the only usage of these two names seems to have been by Cufodontis, who listed them in his Enum. Pl. Aeth. Spermatoph. (in Bull. Jard. Bot. État 31, Suppl.: 726. 1961), and who was followed in the checklists by Lebrun & Stork (Énum. Pl. Afr. Trop. 4: 135. 1997) and Klopper & al. (in S. Afr. Bot. Div. Netw. Rep. 42: 85. 2006).